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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/070,411	10/09/2002	Janne J. Kallio	915-003.006	5550

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EXAMINER

TORRES, MARCOS L

ART UNIT	PAPER NUMBER
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2687

DATE MAILED: 11/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/070,411

Applicant(s)

KALLIO ET AL.

Examiner

Marcos L. Torres

Art Unit

2687

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 March 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 and 13-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 13-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Regarding applicant argument that there is no indication that Bauchot networks are radio network; it is noted that in figure 1 of Bauchot teaches a radio network (see col. 3, line 66 – col. 4, line 4).

Regarding applicant argument that Bauchot teaches away from the solution of one radio network using information obtained from another separate radio network, because Bauchot uses a shared radio channel for both networks; the quantity or if the channel is shared or not does not limit a network to use data from the other network.

Regarding the motivation to combine now is explained with more detail for better clarity.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 29 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. The term "higher than normal timing accuracy" in claim 29 is a relative term that renders the claim indefinite. The term "higher than normal timing accuracy" is not defined by the claim, the specification does not provide a standard for ascertaining the

requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 1-5, 7-8, 10, 14-17 and 28-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Soliman in view of Bauchot.

As to claims 1, 8 and 10, Soliman discloses a frequency setting unit for a radio telecommunications network wherein base stations transmit at an accurately set frequency derived from a reference signal, the frequency setting unit comprising: a radio receiver for receiving signals at a first frequency from a first base station located in the first radio telecommunication; analysis apparatus for analyzing the received signals to determine the first frequency; and frequency setting apparatus responsive to the analysis apparatus and coupled to the second base station transmitting at a second frequency, for adjusting the second frequency with the aim of establishing a desired relationship between the second frequency and the first frequency (see col. 1, line 55 – col. 2, line 65; col. 6, line 62 – col. 7, line 49). Soliman does not specifically disclose that the second BTS is located in a second radio telecommunication network. In an analogous art, Bauchot discloses wherein the second base station is connected to another telecommunications network (see col. 2, line 61 – col. 3, line 10), thereby permitting to communicate between the stations of different networks. Therefore, it would have been obvious to one of the ordinary skill in the art at the time of the invention to add this teaching to the Soliman apparatus for being able to adjust one network to cooperate with the other network.

As to claims 2-5 and 7, Soliman discloses a frequency setting unit wherein said reference signal is provided to the first base station by a reference clock where a pulse train is sent to said first controller, to derive a set of pulse trains that are sent to said first

Art Unit: 2687

base station controlling the first base station, wherein the second base station comprises a clock and the frequency setting apparatus is capable of transmitting a clock setting signal to the second base station for setting the clock, wherein the clock setting signal comprises a stream of clock pulses (see col. 4, line 58 – col. 6, line 65).

As to claim 16, Soliman discloses a frequency setting unit wherein said telecommunications network is operable according any communications standard (see col. 9, lines 61- col. 10, line 4).

Regarding claim 17, 22-25, 27 and 30 are rejected for the same reason shown above to claim 1.

As to claims 14-15, Soliman discloses everything claimed as explained above except for wherein the second base station is connected to another telecommunications network by means of an asynchronous connection. Bauchot discloses wherein the second base station is connected to another telecommunications network by means of an asynchronous connection (see col. 2, line 61 – col. 3, line 10). Therefore, it would have been obvious to one of the ordinary skill in the art at the time of the invention to add this teaching to the Soliman apparatus for the simple reason of compatibility.

As to claim 28 and 29, Bauchot discloses where the synchronization unit is a mobile handset (see col. 3, line 66 – col. 4, line 4).

9. Claims 6 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Soliman in view of Bauchot and further in view of Gass.

As to claim 9, Soliman discloses everything claimed as explained above except for wherein said desired relationship is such that the second frequency is a multiple of

the first frequency by shifting the frequency of said internal clock within the second controller. Gass discloses wherein said desired relationship is such that the second frequency is a multiple of the first frequency by shifting the frequency of said internal clock within the second controller controlling said base station (see col. 4, lines 7-16). Therefore, it would have been obvious to one of the ordinary skill in the art at the time of the invention to combine these teachings for enhanced quality in the communication.

As to claim 6, Soliman does not specifically disclose wherein said clock setting signal is derived from an internal clock within the base station. However, OFFICIAL NOTICE IS TAKEN THAT the use of internal clocks is a common and well-known technique. Therefore, it would have been obvious to one of the ordinary skill in the art at the time of the invention to use this technique for a reliable operation.

10. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Soliman in view of Bauchot and further in view of Toda.

As to claim 13, Soliman discloses everything claimed as explained above except for a frequency setting unit comprised in said second controller. Toda discloses a frequency setting unit comprised in said second controller (see abstract). Therefore, it would have been obvious to one of the ordinary skill in the art at the time of the invention to combine both teaching for enhanced reliability and versatility.

11. Claim 18 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Soliman in view of Bauchot and further in view of Matsuno US005613211A.

As to claims 18 and 26, Soliman discloses everything claimed as explained above except for a frequency setting unit is a base station controller. In an analogous

Art Unit: 2687

art, Matsuno discloses setting the frequency from a base station controller (see col. 9, lines 52-58), thereby synchronizing the base stations connected to the controller.

Therefore, it would have been obvious to one of the ordinary skill in the art at the time of the invention to combine these teachings for controlling frequency synchronization of multiple base stations.

12. Claims 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Soliman in view of Bauchot and further in view of Lu US005761195A.

As to claims 19-20, Soliman discloses a frequency setting unit for a radio telecommunications network wherein base stations transmit at an accurately set frequency derived from a reference signal, the frequency setting unit comprising: a radio receiver for receiving signals at a first frequency from a first base station located in the first radio telecommunication; analysis apparatus for analyzing the received signals to determine the first frequency; and frequency setting apparatus responsive to the analysis apparatus and coupled to the second base station transmitting at a second frequency, for adjusting the second frequency with the aim of establishing a desired relationship between the second frequency and the first frequency (see col. 1, line 55 – col. 2, line 65; col. 6, line 62 – col. 7, line 49). Soliman does not specifically disclose an expansion card or that the second BTS is located in a second radio telecommunication network.

In an analogous art, Bauchot discloses wherein the second base station is connected to another telecommunications network (see col. 2, line 61 – col. 3, line 10), thereby permitting to communicate between the stations of different networks.



Therefore, it would have been obvious to one of the ordinary skill in the art at the time of the invention to add this teaching to the Soliman apparatus for being able to adjust one network to cooperate with the other network.

In another analogous art, Lu discloses that base station controller is made of expansion or circuit cards (see col. 7, lines 61-64). Therefore, it would have been obvious to one of the ordinary skill in the art at the time of the invention to add this teaching to the Soliman and Bauchot modified apparatus for easy expansion, service and upgradeability.

13. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Soliman in view of Bauchot and Lu, and further in view of Matsuno US005613211A.

As to claim 21, Soliman discloses everything claimed as explained above except for a frequency setting unit is a base station controller. In an analogous art, Matsuno discloses setting the frequency from a base station controller (see col. 9, lines 52-58), thereby synchronizing the base stations connected to the controller. Therefore, it would have been obvious to one of the ordinary skill in the art at the time of the invention to combine these teaching for controlling frequency synchronization of multiple base stations.

### ***Conclusion***

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any response to this Office Action should be mailed to:

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Or faxed to:

571-273-8300

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Hand delivered responses should be brought to:

Customer Service Window  
Randolph Building  
401 Dulany Street  
Alexandria, VA 22314

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marcos L. Torres whose telephone number is 571-272-7926. The examiner can normally be reached on 8:00am-6:00 PM alt. Wednesday Off.

Art Unit: 2687

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester G. Kincaid can be reached on 571-252-7922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Marcos L Torres  
Examiner  
Art Unit 2687

  
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11/14/05  
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SUPERVISORY PRIMARY EXAMINER